

# Hossein Soltanloo

## Curriculum Vitae

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### Education

- Jan 2023 – Present **M.Sc. Computing Science**, *Simon Fraser University*, Burnaby, BC, Canada.
- Sep 2016 – Aug 2021 **B.Sc. Computer Engineering**, *School of Electrical and Computer Engineering, University of Tehran*, Tehran, Iran.
- GPA: 3.41/4
  - Thesis topic: "Implementation of a Simulator for the Hybrid Rebeca Language", Thesis grade: 4/4
  - Thesis supervisor: Dr. Fatemeh Ghassemi
- Jul 2013 – Jul 2016 **High School Diploma in Mathematics and Physics**, *National Organization for Development of Exceptional Talents, Allameh Helli High School*, Malard, Tehran, Iran.

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### Research Interests

- Software Engineering
- Software Analysis
- Human-centred Software Engineering
- Human-Computer Interaction

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### Awards and Honors

- 2016 **Admission to** University of Tehran
- 2016 **Ranking among the top %3** of more than 160,000 students in the Nationwide University Entrance Exam (Konkour) on Mathematics and Technical Sciences
- 2016 **Ranking among the top %1** of more than 115,000 students in the Nationwide University Entrance Exam (Konkour) on Foreign Languages

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### Work Experience

- Jan 2023 – Present **Research Assistant**, *Simon Fraser University*, Burnaby, BC, Canada.
- Jul 2020 – Aug 2022 **Front-End Developer**, *Tapsell*, Tehran, Iran.
- Maintain and develop multiple panels written in Angular
  - Maintain and develop the company's front-end design system and Angular library in my last six months of work
  - Lead a team of 4 front-end developers working on two new projects leading to the addition of single sign-on (SSO) to the ad section of the company
  - Maintain and develop multiple VanillaJS and Svelte ad widget projects
  - Mentor two front-end interns
- May 2019 – Jan 2020 **Front-End Developer**, *HerminaTech*, Tehran, Iran.
- HerminaTech, a knowledge-based company, offers cloud-based property management solution (PMS) to resorts, hotels and multi-property groups developed with trending technologies. I first started working there as an intern and after two months, I got a job offer to be a full-time developer. As a front-end developer, I worked on a big project aiming to deliver a highly scalable hotel management web application. I mainly worked with the React library.
- Jul 2014 – Oct 2018 **ICT Journalist**, *www.farnet.ir*, Tehran, Iran.
- As a journalist and blogger, I managed to write hundreds of articles and news.

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## Publications

- o Solouki, S., & Soltanloo, H. (2018). The spaces where addiction acts: Focus on drug-induced molecular and cellular changes in the cerebellum. In S. Fabbri (Ed.), *Development of the cerebellum: Clinical and molecular perspectives* (pp. 69-117). Nova Science Publishers.

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## Notable Academic Projects

- Spring 2021 Development of a simulator for the Hybrid Rebeca language—an actor-based cyber-physical system modeling language.  
Supervisor: Prof. F. Ghassemi, Bachelor's Thesis Project
- Spring 2021 Development of a decentralized tracker for shared expenses built with smart contracts on top of the Ethereum blockchain. [Source Code]  
Advisor: Prof. B. Bahrak, Introduction to Cryptocurrencies Course
- Fall 2020 In a series of five projects, we got familiar with parallel programming libraries, such as Intel SIMD, PThread, OpenMP, and Nvidia CUDA programming. [Source Code]  
Advisor: Prof. S. Safari, Parallel Programming Course
- Spring 2020 In a series of six projects, we got familiar with traditional aspects of artificial intelligence, like search algorithms, and the more modern Machine Learning methods, like ensemble methods, regression, and neural networks. [Source Code]  
Advisor: Prof. H. Fadaei, Artificial Intelligence Course
- Fall 2019 Development of a meeting scheduler web application as a team of three utilizing agile development methods [Source Code]  
Advisor: Prof. R. Khosravi, Software Engineering Course
- Spring 2019 Development of a job-finding web application [Source Code]  
Advisor: Prof. E. Khamespanah, Internet Engineering Course
- Spring 2019 Building a Ball and Plate controller system with two degrees of freedom using Arduino [Source Code] [Demo]  
Advisor: Prof. M. Kargahi, Real-Time and Embedded Systems Course
- Fall 2018 Development of new features on the xv6 operating system in five phases [Source Code]  
Advisor: Prof. M. Kargahi, Operating Systems Lab
- Fall 2018 Implementation of a multi-threaded neural network using pthread and semaphores in C++ [Source Code]  
Advisor: Prof. M. Kargahi, Operating Systems Course
- Fall 2018 Development of a compiler for the Smoola language [Source Code]  
Advisor: Prof. F. Ghassemi, Programming Languages and Compilers Course
- Spring 2017 Development of a simple version of Plants vs. Zombies game using C++ and SDL libraries  
Advisor: Prof. R. Khosravi, Advanced Programming Course

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## Teaching Experience

- Fall 2020, Spring 2020, & Fall 2019 Teaching Assistant, **"Operating Systems Course and Lab"**  
Instructor: Prof. M. Kargahi, University of Tehran  
Description: I was responsible for designing and grading various course and lab assignments. The assignments that I designed were mainly focused on familiarizing the students with process synchronization and inter-process communication.
- Fall 2020 Teaching Assistant, **"Software Engineering"**  
Instructor: Prof. R. Khosravi, University of Tehran  
Description: I was responsible for preparing and grading some assignments. The assignments aimed for familiarizing the students with software development methods and best practices.

- Spring 2020 Head Teaching Assistant, "**Systems Analysis and Design**"  
 Instructor: Prof. F. Ghassemi, University of Tehran  
 Description: As the head teaching assistant, I planned and managed all of the course activities.
- Spring 2020 Teaching Assistant, "**Internet Engineering**"  
 Instructor: Prof. E. Khamespanah, University of Tehran  
 Description: In this course, I was responsible for designing and grading two assignments. The goal of the assignments was to familiarize the students with front-end web development tools and technologies.
- Spring 2020 Teaching Assistant, "**Real-Time and Embedded Systems**"  
 Instructor: Prof. M. Kargahi, University of Tehran  
 Description: I contributed to design of a computer assignment about communication protocols and sensors.

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## Relevant Courses

Operating Systems(4/4), Systems Analysis and Design(4/4), Software Engineering(4/4), Software Testing(4/4), Programming Languages and Compilers(4/4), Advanced Software Design(4/4), Artificial Intelligence(4/4), Parallel Programming(4/4), Internet Engineering(4/4), Human-Computer Interaction(4/4), Introduction to Cryptocurrencies (Master's Course)(4/4)

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## Technical Skills

Programming Languages	Python, C/C++, Java, JavaScript, TypeScript
Web/DB Technologies	HTML, CSS, React, Vue, Angular, Docker, MySQL
Tools	Git, $\LaTeX$ , Postman, Sketch
Operating Systems	Apple macOS, Microsoft Windows, Linux (Ubuntu)
Other	Photography

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## Volunteering and Activities

- Dec 2017 – May 2019 **Treasurer**, *University of Tehran ACM Student Chapter (Student Association of Computer Engineering)*, Tehran, Iran.
- Apr 2019 **Organizing Committee Member**, *8th IPM International Conference on Fundamentals of Software Engineering*, Tehran, Iran.  
 Picked up international guests from the airport and guided them throughout their stay. I also was a photographer.
- May 2018 **Organizing Committee Member**, *The CSI International Symposium on Real-Time and Embedded Systems and Technologies (RTEST)*, Tehran, Iran.  
 I was in charge of poster, certificate, and ID card design.
- June 2016 – Feb 2017 **Translator**, *Pingonio*.  
 Contributed to group translation of the book "The Mom Test" available on pingon.io.

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## Languages

Persian	Native	
English	Advanced	TOEFL: 115/120 [R:30, L:30, S:25, W:30] (Sep. 2021)
Arabic	Only Reading	

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## References

Excellent references are available upon request